

A META-ANALYSIS ASSESSING THE QUALITY OF PUBLISHED ARTICLES BASED ON THE CHECKLIST QUOROM

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10.1136/bmjopen-2016-015415.153

Background and aims: The Quality of Reporting of Meta-analyses (QUOROM) conference was convened to address standards for improving the QUOROM of clinical randomized controlled trials (RCTs). The Structure of articles based on scientific standards is one of factors that affects. The QUOROM statement for reporting SR was created according to evidence and is a comprehensive set of guidelines. Development of the QUOROM statement in 1996 which was expected to set some standards in drafting of meta-analysis of RCTs. In 2009, the QUORUM Statement was replaced by the PRISMA Statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses) to also apply to SRs.

Methods: We searched the data base in Cochrane, Medline, Google Scholar, PubMed, Iranmedex, SID, IranDoc, Magiran for 2000 to 2016 with keywords quality assessment, systematic review, meta-analysis, quarom and obtained: The checklist consists of 18 items, including 8 evidence based ones, addressing primarily the Abstract, Introduction, Methods, and Results section of a report of a SR of RCTs. This checklist encourages authors to provide readers with information regarding searches, selection, validity assessment, data abstraction, study

characteristics, quantitative data synthesis, and trial flow. Items reported in the QUOROM statement that are to be included in a SR report were chosen based on evidence whenever possible, which implies the need to include items that can systematically influence estimates of treatment effects.

Results: Beverley Shea & *et al* (2000) compared the QUOROM statement to other tools and Found The majority of checklists contained items about what the method section of a SR should include and generally neglected the other components of the report: only one (5%) checklist included an item regarding the title and two (10%) addressed the abstract. The Abstract items in the QUOROM checklist were the least frequently encountered among the checklists (0–9%). Thirteen (62%) included an item about the introduction. There was considerable overlap between the content of the QUOROM checklist and the method section of the other checklists. All but two checklists (90%) asked about the searching and all but one (95%) asked about the selection criteria. Sixteen (76%) included an item on validity and twelve (57%) asked about data abstraction. Items about data synthesis were definitely present in 13 checklists (62%). However, while quantitative data synthesis was clearly identified as a prerequisite in 13 (62%) of the checklists and may possibly have been required in three others, only nine (43%) of them (and possibly four others) included a question on the individual study characteristics in the methods section. In 2009, the QUORUM Statement was replaced by the PRISMA Statement to also apply to SRs. Today, a use of PRISMA Statement isn't enough in the studies.

Conclusion: Clearly, research is required to help improve the QUOROM. Such evidence may also act as a catalyst for improving the methods by which meta-analyses are conducted. RCTs and meta-analysis aren't presented in high quality reports. Therefore, training courses about qualitative reporting of RCT results seem necessary for medical researchers. In addition, editors of medical journals must provide necessary reporting guidelines for authors and reviewers to improve the quality of published researches.